

ABSTRACT OF DISCLOSURE

An adaptive writing method of a high-density optical recording apparatus and a circuit thereof. The circuit includes a discriminator for discriminating a magnitude of a present mark of input NRZI data and magnitudes of leading and/or trailing spaces of the input NRZI data, a generator for controlling the waveform of a write pulse in accordance with the magnitude of the present mark of the input NRZI data and the magnitudes of the leading and/or trailing spaces of the input NRZI data to generate an adaptive write pulse, and a driver for driving a light source by converting the adaptive write pulse into a current signal in accordance with driving power levels for respective channels of the adaptive write pulse. The widths of the first and/or last pulses of the write pulse waveform are varied in accordance with the magnitude of the present mark of input NRZI data and the magnitude of the leading and/or trailing spaces, thereby minimizing jitter to enhance system reliability and performance.